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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LE, HUYEN D

ART UNIT PAPER NUMBER

2643

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/804,981

Applicant(s)

MAHONEY ET AL.

Examiner

HUYEN D. LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claim 14 is objected to because of the following: In claim 14, line 1, before "housing", --the-- or --said-- should be inserted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-23 and 25-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Shennib (U.S. patent 6,473,513).

Regarding claims 1, 3, 12, 14, 23, 25, 27, 35 and 37, Shennib teaches a method and apparatus of a mushroom shaped tip (80, figures 5-7, 13 and 18).

As shown in the drawings, an inner portion of the tip defining a bore as claimed, the proximal end of the bore is adapted to be disposed adjacent an eardrum, and a receiver (71) is mounted within a housing that is formed in the tip of the bore.

Regarding claims 2, 4, 9, 13, 15, 20, 26, 28, 26, 33, 36, 38 and 43, Shennib teaches a sealing layer as claimed (col. 11, lines 47-50 and col. 12, lines 63-65).

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Regarding claims 5-8, 10, 16-19, 21, 29-32 and 39-42, Shennib teaches a receiver housing (70) and spring assembly (79) as claimed (see figures 6,7 and 12-13, and col. 11, lines 50-52).

Regarding claims 11, 22, 34 and 44, Shennib teaches the inner portion formed of a first material (col. 11, lines 47-52 and col. 12, lines 64-65), and the tip portion (80) formed of a second material that has a greater compliance than the first material (col. 14, lines 58-63).

4. Claims 1 and 23-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Shennib (U.S. patent 5,701,348).

Regarding claims 1, 23, 25, 27, 35 and 37, as broadly claimed, Shennib teaches a method and apparatus of a flexible tip (40, see page 9, and figures 3-5, 12-14, 19, 20, 23, 29-30 and 32) that has a mushroom shaped tip (43, 70, 190).

Shennib further shows an inner portion of the tip defining a bore as claimed (figures 3, 4, 10-14 and 18). As shown in the drawings, the proximal end of the bore is adapted to be disposed adjacent an eardrum, and a housing (41, 42) for receiving a receiver (41) is formed in the tip of the bore as claimed.

Regarding claim 24, as broadly claimed, the amount of power required by the receiver of the Shennib device is decreased since the receiver (41) mounted within the hearing aid tip (40) is positioned adjacent to the user's eardrum within the user's auditory canal (see col. 4, lines 48-49 and lines 63-67 and also see page 4, lines 2-6 in the specification).

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Regarding claims 26 and 36, Shennib teaches a sealing layer as claimed (figures 10-11, 15-17, page 7, lines 6-8 and col. 9, lines 53-60).

Regarding claims 28, 33, 38 and 43, Shennib teaches a sealing layer as claimed (figures 15-17 and col. 9, lines 53-60).

Regarding claims 29-32 and 39-42, Shennib shows a receiver housing and spring assembly as claimed (figures 3-5, 10-11 and 28).

Regarding claims 34 and 44, as broadly claimed, Shennib teaches the inner portion is formed of a first material (the semi-rigid tubing 71), and the tip is formed a second material as claimed (col. 9, lines 24-26, 30-32, 45-46 and lines 61-63).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shennib et al. (U.S. patent 5,701,348).

Regarding claims 1, 23 (as interpreted in a different manner), 3, 10, 12 and 14, Shennib teaches a method and apparatus of a hearing aid that comprises a hearing aid base unit (12). The base unit has a housing (13), a microphone (14), a battery (15, 16), electronics (17) and a flexible tip (40 and col. 9) as claimed, wherein the flexible tip (40) is connected to the base unit (12, figures 3-5, 19, 20, 23, 29-30 and 32) and has an inner portion (figures 3, 4, 10, 11, 18).

Shennib further shows an inner portion of the tip defining a bore as claimed (figures 3, 4, 10-14 and 18). As shown in the drawings, the proximal end of the bore is adapted to be disposed adjacent an eardrum, and a housing (41, 42) for receiving a receiver (41) is formed in the tip of the bore as claimed.

Shennib does not specifically disclose that the flexible tip (40) has a mushroom shaped tip as claimed. However, the examiner takes the Office Notice that providing a mushroom shape for the ear tip is well known in the art.

Since Shennib does not restrict to any shape for the flexible ear tip (40), it therefore would have been obvious to one skilled in the art to provide any shape for the tip of the Shennib device such as a mushroom for better sealing and better conforming to the shape of the ear.

Regarding claims 2 and 13, Shennib teaches a sealing layer as claimed (figures 10-11, 15-17, page 7, lines 6-8 and page 9, lines 53-60).

Regarding claims 4, 9, 15, and 20, Shennib teaches a sealing layer as claimed (figures 15-17 and page 9, lines 53-60).

Regarding claims 5-8 and 16-19, Shennib shows a receiver housing and spring assembly as claimed (figures 3-5, 10-11 and 28).

Regarding claims 11 and 22, as broadly claimed, Shennib teaches the inner portion is formed of a first material (the semi-rigid tubing 71), and the tip is formed a second material (page 9, lines 24-26, 30-32, 45-46 and lines 61-63).

Regarding claim 21, as broadly claimed, Shennib teaches the inner portion and the tip that are formed of a compliant material (page 9, lines 24-26, 30-32, 45-46 and lines 61-63).

Regarding claim 24, as interpreted in a different manner, Shennib does not specifically disclose the method that comprises the decreasing the amount of power as claimed. However, Shennib does teach that the receiver module is inserted deeply into the ear canal for providing the advantage of improved energy efficiency.

Therefore, it would have been obvious to one skilled in the art to provide the amount of power of the Shennib device to be decreased for the improved energy efficiency (col. 4, lines 63-66) and better fitting and comfort to the user's ear canal.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shennib et al. (U.S. patent 6,473,513).

Shennib does not specifically disclose the method that comprises the decreasing the amount of power as claimed. However, Shennib does teach that the receiver module

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is inserted deeply into the ear canal for providing the advantage of improved energy efficiency.

Therefore, it would have been obvious to one skilled in the art to provide the amount of power of the Shennib device to be decreased for the improved energy efficiency and better fitting and comfort to the user's ear canal.

Response to Arguments

8. Applicant's arguments filed 8/13/04 have been fully considered but they are not persuasive.

Responding to the arguments about the limitation of the housing in Shennib'348, the Applicant should note that as broadly claimed Shennib does show a housing (the receiver housing or the housing for receiving the receiver) formed in the bore of the tip (43, 70, 190).

9. Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection of Shennib (U.S. 6,473,513).

Since the Applicant does not claim that the application of the present invention is a continuation of any previous cases, the Shennib reference (6,474,513) is therefore still applicable for the rejection under 102 (e) as mentioned above.

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Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (703) 305-4844. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HL
December 10, 2004



HUYEN LE
PRIMARY EXAMINER